

SUNDAY EDITION.

VOL. XI.

UNEVENTFUL
WEEK RECORDED
IN THE DISTRICT

Development Work Progressing Satisfactorily with Usual Finds of New Ore Bodies. Street Cars Will Soon Run.

With the exception of the encountering of a new high grade ore body in the Superior & Pittsburgh property the local mining situation has been featureless during the past week. There has been practically no change in the metal market, although those in touch with the situation are confident that the near future will see an improvement in the price of copper, the surplus now being greatly reduced, and the supply much smaller than the consumption.

Owing to the blowing-in of two new furnaces in Douglas, one at each of the Copper Queen and Calumet & Arizona plants the shipments of ore from the district have been slightly increased. However it is understood that these companies will commence handling custom ore again, which will supply the two new furnaces.

The plan of opening up new ground in the various properties is still being followed and has resulted in the discovery of several valuable and extensive bodies of ore. These bodies will be blocked out and when the time comes that the producers are of the opinion that the price warrants a big production shipments from the mines will be increased.

The new electric car line from Warren has been completed into the hills and will probably be in operation within a very few days. The road runs to a point very close to the Sacramento and Oliver shafts, and will be a great convenience for men going on and coming off shift.

Machinery men made progress with the work of placing the equipment in the new Copper Queen power house, while work on the Sacramento shaft and underground workings has progressed rapidly.

At the smaller properties development work has been going on in spite of the depression.

During the week there has been no instance of increasing the number of miners. At the present time the Calumet & Arizona is working fully as many men as ever in the history of the company, both in the mines and at the smelter in Douglas. The Copper Queen has not yet got back to the maximum force, but some additions have been made since the first of the year.

The work of grading for the spur track which is to reach the Sacramento shaft is progressing with a good force of men and teams employed. Andy Scott, of Douglas, has the contract for this work, which was commenced more than a month ago. Mr. Scott was in Bisbee yesterday and stated that he hoped to complete the contract before the middle of March.

It has not been possible to get the exact amount of copper made from Bisbee ore during the first month of 1908, but both smelters had more furnaces in operation than they had in January. All the ore for the C. & A. smelter goes down from Bisbee and practically all the ore smelted by the Queen in January, excepting the concentrates from Nacozari went down from the Warren district.

AT THE SMELTERS

While nothing startling has developed at the Copper Queen smelter during the week, the situation is, to say the least, very interesting. Approaching the smelter one is impressed with the enormous supply of fuel, flux and ore which has already accumulated in the yards.

The first feature that would challenge interest was the presence on the standard gauge tracks of just eighty-six full "battleship" coke cars, each with a capacity of 100,000 pounds. This array of coke did not interest to say the least, while across on the ground is held in reserve and the bins are overflowing.

The ore supply is equally astonishing, while the line can be laid down at any time, it is in easy reach, regardless of weather conditions.

The old stock pit of ore has been completely filled and "heaped up." This pit has an enormous capacity and in case of normal inflow of ore should be interrupted by elemental damages to lines of transportation, or otherwise, this reserve would carry the big smelter for at least 100 days. It can be safely asserted that never before has the Copper Queen been in a shape to do business on a heavier scale at her smelter, and never before has greater activity been in evidence about the great reduction system.

At the power house at the present writing, twenty-three engines, some of them as high as 800 horsepower, are installed, besides the pumps, generators and dynamos. This includes two new blowers, which are being completed but have never yet been used. This is unquestionably the finest aggregation of power machinery in the southwest.

The Copper Queen shops are over-run with work, constructing and repairing jackets, converters, electric locomotives, etc.

At the present time the reverberatory furnace is also in full commission, appreciably increasing the total output of the smelter by virtue of the high grade fine dust which it is handling.

The latest and one of the most interesting improvements installed at the Copper Queen smelter is a new system of casting their Bessemer block instead of the old plan of moulding. In the new system, the

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NEW SMELTER
IS BLOWN IN
BY IMPERIAL

Imperial Copper Company Puts 350 Ton Furnace Into Commission—History of Property and Work Being Done.

At the new town of Sasco the Imperial Copper company started up the new smelting plant on Saturday last. Concerning the history of the property for which this smelter has been provided and description of mine and reduction plant the Arizona Republican says:

The Imperial mine is situated twenty miles south of Red Rock which is on the Southern Pacific railroad about thirty miles west of Tucson. The property is one of the copper deposits discovered in an early day and was favorably located were deemed valuable. Nothing pertaining to the Old Boot mine was of value to operators of the present day, except the known existence of a large body of copper ore. Even the old workings were of little use except in demonstrating the existence of the ore, for modern methods demand development on plans suited to modern operations.

For all practical purposes it was therefore a virgin field. When the new owners acquired the property in March, 1902, organizing for that purpose the Imperial Copper company of which the following named are the officers at this time: E. B. Gage, president; W. F. Stanton, vice president and general manager; A. N. Gage, secretary and treasurer; V. L. Mason, assistant secretary and treasurer; and G. W. Dietz, auditor.

It was the purpose of the company to make a copper mine, not merely to play at mining. Large operations were contemplated from the beginning for in copper mining more than almost any other enterprise, profits depend on a large volume of business and a small percentage of profit may make a large aggregate. A railroad to the property from Red Rock was therefore planned at once and the Arizona Southern railroad company was organized. This road is named being the present officers: E. B. Gage, president; H. M. Robinson, vice president; W. F. Stanton, general manager; Henry Kinsley, secretary; A. N. Gage, treasurer; F. F. Frantz, superintendent. This road is named locally as the Imperial road, merely as a briber and more suggestive term.

The railroad was completed in the summer of 1904 less than a year and after the mining property was acquired, September 7, 1904, shipments of ore began to the Copper Queen smelter in Douglas and from that date until the 8th of January, 1908, the shipments of ore averaged over 100 tons per day. Since January 8 all the ore removed from the mine has gone to the company's smelter bins.

The building of a smelter was also a primary conception of the project. The mine was sufficiently developed after the mine was sufficiently developed and the railroad was in commission, for the smelter would necessarily be some distance from Red Rock if not at the mine and could not be constructed nor operated with economy except by rail connection.

An ideal site for a smelter was found eight miles from Red Rock and twelve miles from the mine at the foot of the mountain chain, so the haul from the mine to the smelter is all down grade and the haul for smelter fuel from Red Rock is a very slight up grade. A good water supply and town site and all things needed in natural prerequisites are at hand. The Southern Arizona Smelting company was organized August 14, 1906, and the present officers of the corporation are: E. B. Gage, president; W. F. Stanton, vice president and general manager; A. N. Gage, secretary and treasurer; M. Goodie, superintendent.

Near the Imperial mine is the old time camp of Silver Bell the center of interest in the Silver Bell district in which the Imperial property is situated. With the beginning of the events here related Silver Bell became a "live" camp, increased in population by the employees of the mine and those who congregated in mining camps to enter to the necessities and pleasures of a mining population. At the smelter site a new town has also of necessity sprung into existence, populated mainly by the employees of the smelter company. This town has been most uniquely and appropriately named Sasco by the Imperial company. By the increase of business at the junction point, Red Rock, there has been a small addition to the population also, so that the operations of the men behind the Imperial concern have developed a zone of business prosperity twenty miles long, from Red Rock to Silver Bell, aside from the benefits accruing to the various stockholders and to the world by the increased production of a valuable metal. A feature of the company's business also is a merchandising establishment with a good stock and a volume of business that is remarkable.

At Corral, about 100 miles in a direct line southeast of Guaymas, the most important junction on the system has been established. Running north from that point and almost parallel with its original Sonora line, the Cananea, Rio Yaqui & Pacific, as the Southern Pacific system is known in Mexico, a line with numerous branches has been projected and partially constructed as far as Nacozari, where it connects with the Ferro Carril de Nacozari of the Phelps Dodge system, affording a direct outlet for its inland traffic. The main line is in operation to a point a little distance south of Iamso near the line of Sinaloa. Construction work on the Yaqui river branch has been partially suspended of late between Nacozari and Cupmas, but nearly one-half of

the rock work and grading has been completed and there is no reason for assuming that the company intends to abandon the branch.

The Phelps-Dodge people, the integrity of whose railway concessions have in certain instances been questioned by inexperienced observers, in addition to the splendid work accomplished in projecting their line from Douglas on the international boundary, show a disposition toward activity on aggressive lines. Their Nacozari road, primarily conceived as a necessary adjunct to their heavy mining operations in the Sonora district, has proven successful in every respect, to a degree that is calculated to tempt them from the trodden trail of close commercial operations. Reports to the effect that they have begun construction work from Guaymas north are unconfirmed, but are nevertheless sources of potent suggestions, not inconsistent with the spirit of enterprise which seems to be absolutely rampant in the great mining field of Sonora.

In addition to the vital operations of the Phelps-Dodge and Southern Pacific systems in the very heart of So-building along its borders, whose connection, if not their actual appearance in the field, most vividly an important influence on the development of the resources of the state.

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Sonora, Empire in Itself, With Mines of Fabulous Wealth, Invites American Enterprise and Capital to Sure Profit

(Iron Ore.) When you mention Sonora you are gathering about "our own fire-side." For centuries the rebellious subject of Spain, for a century more the wayward ward of Mexico, now like all lesser Bohemian kingdoms, the pride of the mother government whose stern but kindly hand held the virtuous but traitor sister in full parental embrace.

For centuries Sonora was the outpost of Spanish and, subsequently, Mexican territorial activity, and the base of operations from which Mexico's power was subsequently extended to California, Arizona, New Mexico and Colorado. Coronado considered himself at home until he crossed the boundaries of Sonora and plunged into the unknown lands beyond the search of the utopian El Dorado Springs which were presumed to restore fortune, youth and health to the desideratum "devoutly to be wished."

Sonora as a military base, and Arizona as the capital, a great provincial empire was turned to form, including besides the original state of Arizona, California, New Mexico and Colorado.

Frontiers was the military outpost, beyond which the individual adventurer was presumed to reckon single-handed with the host of barbarians. But the power of primitive firearms told much and the patient, unflinching potency of faithful teaching of the pious fathers told even a greater story until a vast area, filled with the sons of Spanish warriors, with the sons of the daughters of the "invincible" Montezuma adopted the letters of the Spanish language and religion completely surrendering their original institutions, faiths, traditions and autonomy to the Latin domination.

The term Sonora in the contemplation of him who has spent time and attention on the subject, suggests vastness, immensity, breadth and infinite expanse, rugged mountains whose peaks or less value have been discovered, and a mining field of bewildering extent and remarkable richness.

Thousands of antiqua workings are in evidence throughout the length and breadth of the state, and at every step old workings from deep caverns "cambusino" work down to mere gasches in the landscape almost entirely obliterated by the action of the elements are encountered and hundreds of modern propositions of grander or less value have been discovered first by the hardy adventurers in the days when Sonora was supposed to be the rim of the world.

It is inconceivable, the weird, the trade and extraordinary experience of those who have traversed the desert and mountains, through forests and chapparal and cactus and flood and thirst and hunger, they forced their way until the ledge was found, and then they followed the vein, and when the treasure was borne away across the sea to enrich a greedy and imperious monarch on a feudal throne.

Now that modern conditions are rapidly obtaining with the certainty of complete possession of these illimitable fields at no remote day, the most extravagant predictions regarding the future of the state are liable to fall short of the reality.

Under the head several matters are of so nearly equal importance, that none are entitled to conspicuous preference. Among the all, however, railroads constitute the most significant, crossing successively the state, the state and the territorial, that mighty materialistic iconoclast, which has opened up, transformed and developed more wilderness, vaster wilds and greater areas of natural resources than all other agencies combined, has not overlooked this garden of opportunity, and as each and every line creeps further into the interior, the result spurs the powers and intelligences behind it to greater effort and broader calculation.

Year ago the Santa Fe built the Sonora road from Nogales to Guaymas, which was quickly absorbed by the far-seeing policy of the Huntington management. For years the operations of that branch were of high consequence and the superficial observer was disposed to question the wisdom of the enterprise. During the last two years, however, the sudden evolution of the Harriman plan explains the situation.

At the obscure station of Empalme, nine miles north of Guaymas, great activity suddenly became apparent and material began to accumulate on a scale that set the public nose with expectation. Following that on the heels of this development, the Harriman plan was suddenly unfolded.

Its primary object was the construction of a mighty artery of trade and transportation from Guaymas to Guadalupe, crossing successively the states of Sonora, Sinaloa, Territory of Tepic and Jalisco, connecting with a branch of the Mexican Central at Guadalupe. The main line cuts across an important part of Sonora and traverses the entire length of Sinaloa, touching the gulf at Mazatlan, and along with its numerous feeders opening up a country of extraordinary extent with resources varied and illimitable.

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late years, especially in the direction of copper. Perhaps the most extensive placer fields in the republic are in this district. The Papagos and other Indians have worked these fields along primitive lines for years, but scarcity of water will preclude them from becoming the standard important until some method of dry washing on a scale commensurate with the current demands of the country shall have been perfected.

Quartz mining has been fairly successful of late years, the famous El Tiro ledge having contributed largely toward bringing the district into prominence. The Cerro Colorado also has been an important producer, though low grade is apparently inexhaustible. This is the northwestern district of the state, lying along the gulf for a great distance.

Water storage would go a long way to solve the vexing question of this historic district, which, however, is gradually improving in its annual output.

Hermosillo District.

This district is among the first rank in the state, and is rich in resources and practically every feature of importance.

The Minas Prietas mines alone have contributed immensely to make the district famous. Occupying an important position in the central, southwesterly division of the state, reaching from the Yaqui river to the coast, its geographical situation assisted by the presence of the C. R. Y. & P. railroad, renders development of that locality easy. The history of the great Minas Prietas, twelve miles east of Torres, a station on the Sonora railroad with which it is connected by a narrow gauge, is familiar to the public. That property and others which so to make up the greatness of the district, is an immense gold proposition, which by reason of its immensity, enjoys most of the advantages of a great copper mine, without sharing in the embarrassment so frequently arising in the fluctuation of the price of its product.

The Cerro Colorado company is another fine and steady producer and while none of these compare in point of bulk and capital with the big copper proposition of the state, their aggregate output is clean, steady and of decided importance as a factor in the total product of Sonora. The La Colorado ledge is one of the greatest ever brought to the attention of the mining world, and as a result of the magnitude on which gold properties have been handled in the past, the Grand Central is candelizing and otherwise converting old dumps which it will require their immense plant years to dispose of.

The Yaqui Question.

This matter is hardly entitled to a prominent head in this contribution, for the reason that it has been practically eliminated from the list of problems confronting the future of Sonora. We are not here to discuss the merits of this situation, its origin and history; only its complexity and proportions at the present time.

Early in the year 1907, the prominence has been given this matter in the yellow press of the day, resulting in setting up a bogey man of abnormal proportions where only the fading remnant of a tribe of aborigines are waging a feeble struggle for existence.

The importance attaching to a proposition by interested, yet uninformed parties, however, often requires an explanation which in the eyes of those acquainted with the fact, would seem entirely superfluous.

The Yaqui situation has never, since the country began to attract foreign enterprise, been in any sense serious. The Yaqui has never lost an opportunity to make war on Mexican soldiers, and shows no particular fondness for Mexicans in general. In rare instances he has killed an American, where, in endeavoring to appropriate the white man's coveted goods and amulets, he has committed an atrocious crime. Numerous atrocious murders of foreigners, attributed at the time to Yaquis, were in nearly every instance traced to renegade Mexicans. In no instance has the attitude of the Yaqui tended to endanger, embarrass or discredit the American investor, his plans, field work and practical operations. Of late, what little concern that might have been entertained by the American investor, has been minimized by the advent of thousands of white men along the railroad and mining operations, and those contemplating investment in Sonora, with only the Yaqui situation between them and their business, they are perceiving the innocuous wrath of a harmless scarecrow to stand between them and the best opportunities of their lives.

Security.

Security to capital to property and person, has been conclusively guaranteed and that guarantee vindicated.

The Cananea incident, while deplorable on its face, has served to settle any question of that nature which might ever arise in the mind of a prudent investor. The promptitude, the fearlessness and decision with which the authorities appear on the scene and proceed to enforce the law to the letter, forms an example which many other communities could well afford to follow.

Thus, general conditions and prospects in the state of Sonora are, to say the least, eminently satisfactory.

The Sonora Mining Field.

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QUINCY MOVES
TOWARD OTHER
MINE TRACTS

Interesting Gossip Of Copper From The Great Michigan District By Our Special Correspondent at Houghton.

(Special to the Review) HOUGHTON, Mich., Feb. 8.—Quincy expansion northward in the Mesnard and Pontiac tracts is rapidly taking shape. This portion is separated from old Quincy on surface by Franklin, but they have underground connections below Franklin's boundary corner. No. 8 or Mesnard shaft has reached upwards of 4000 feet in depth and the lode there is looking as good as in any part of the mine.

Diamond drilling last fall located the outcrop and dip of the lode northward and the site was selected for No. 9 or Pontiac shaft, 2,600 feet north of No. 8. In the machine shops the boiler engine and their equipment are being prepared to install there and the sinking will start as soon as the spring weather permits. The shaft will be equipped full size for working and not for exploration. There is no overburden.

The installation of the air compressor now on the ground will complete No. 8's permanent equipment. The concrete foundation, 12 feet deep, was finished this week. The compressor is the rolling mill type, with continuous frame and base extending under all the cylinders, giving it unusual strength. It is cross compound and two stage, with a capacity to actuate 65 drills. Three boilers of 250 horse-power each will be installed for the compressor, giving No. 8 an equipment of ten boilers.

Additional economy has been secured by consolidating the steam supply for No. 2 and No. 6 compressors in one boiler house and raising the pressure to 150 pounds. The same pressure will be used at No. 3 compressor. The new equipment will give Quincy air capacity for considerable over 3000 drills.

Quincy No. 7 shaft rockhouse has its interior remodeled, reducing the number of men and increasing the output to 700 tons of rock from 150 tons. Previous to 1905 it required 28 men to handle the rock output of 24 hours at No. 7. Improvements in that year reduced this number to 16 men with the output of 240 tons of rock.

The rock is dumped into an immense steel hopper, from the throat of which it is fed to two giant crushers. One man at each crusher controls the pneumatic gate and picks out the mass of copper. The masses are cleaned of gangue rock by a steel hammer. Either crusher is capable of taking care of the entire output for a limited time and repairs can be made without interrupting the work.

Quincy No. 2 shaft is to have a steel rockhouse in place of the frame one now in service. It will be of the modern type. The mine has twenty electric locomotives in service underground.

Arcadian is sinking in the rock after penetrating 75 feet of overburden in the vertical shaft that will explore the eastern part of the property. The shaft recently penetrated the lode, and is now eastward for 1000 feet and the new shaft is about midway between the limit of ground reached by the crosscut and the eastern boundary. From an undetermined depth, a crosscut will be driven east and west to explore the remainder of the tract. A number of fairly encouraging lodes containing copper were opened by the former crosscut, but it is planned to map all of the lodes by crosscutting before the development is centered upon any one.

Rhode Island is penetrating the most encouraging stretch of copper ground found during its career, driving to the south at a depth of 1275 feet on the Peabody lode. This approach of the Franklin Junior's good showing on the same lode. The drift was started last April and has been carried 625 feet, throughout a large part of which good showing has been opened. No stopes have been cut out the object being to gain distance as rapidly as possible. A drift north at the same level is in 1000 feet. There the ground is not so good in copper but the character of the rock is encouraging. Two drills are in service. The lode varies in width from six to fourteen feet.

Rhode Island has discontinued all diamond drilling. It had a drill underground some time ago which penetrated the Peabody East and two unnamed copper bearing amphibolites, the Mesnard episode and the Alouette conglomerate. Later the drill was put on surface to determine the extension and dip of the Keasake lode, which had been previously located. It was then removed to the Quincy, where it located the lode for opening No. 9 or Pontiac shaft. It may be brought back to Rhode Island for underground service. Rhode Island's Keasake lode cores did not reveal copper values considered worthy of development. If the LaSalle to the north, develops good ground with depth, Rhode Island may be encouraged to open shafts on the lode, but not otherwise.

Electric hoisting will be given a tryout at Winona No. 4 shaft and King Philip No. 1 shaft, where the equipment will be in service by May. The present hoisting drums will be left in place and the electric motors geared to them. Each motor will have a nominal capacity of hoisting from a depth of 1500 feet, but it is believed 2000 feet can be reached. King Philip No. 2 shaft was sunk 110 feet with a small electric hoist having a nominal capacity of 100 feet, which had a 15-

The Cleonegata Copper company, at Chignola, the Garretson combination, and the celebrated Mulatto, the latter belonging to the Greens Gold and Silver company, are among those who have already arisen to the dignity of steady producers in the district. In view of its undeveloped resources this district properly claims a future of unusual promise.

The Ures district is centrally located and enjoys practically all of the

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COPPER PRICE
WILL ADVANCE
GRADUALLY

Foreign Demand During the Depression In This Country Has Remained About Normal, and Supply Decreasing

(By G. L. Walker in Boston Commercial.)

Copper is stronger and there is every reason to expect a further gradual advance in price. Lake and electrolytic are now quoted at 14 to 14 1/2 cents per pound. Some sales were recently made at a small fraction below 14 cents, due to the fact that there is just now no unity of action or policy on the part of the producers. All agree, however, that prices should go higher. At the present surplus supplies of copper are very small compared with what they were three months ago. It seems that the foreign demand throughout the depression has been about normal. Foreign manufacturers seem to have almost as many orders on their books as at any time within the past two or three years. One German copper consumer states that he has 100 per cent more orders booked in December 1907, than in the corresponding month of either 1906 or 1905.

It seems that only a comparatively small portion of the copper shipped abroad was purchased by speculators which means by those who plan to sell later on. Some foreign consumers undoubtedly purchased more than their immediate requirements called for, however, thinking the metal was cheap. The largest producing interests in this country shipped a considerable quantity of copper abroad about the time of the panic, stored it in foreign warehouses and borrowed money on it. The greater portion of this copper has since been sold, withdrawn from the warehouses and delivered.

Domestic consumption has undergone a tremendous shrinkage, and as yet few if any signs of improvement are noted. As soon as the easier monetary conditions encourage a renewal of construction work, the telephone, telegraph, electric light and power companies, there will be a decided increase in the demand for copper.

One of the largest producing international coppermen, who is the most careful student of the copper situation, expresses the belief that if all of the copper mines were again running to their full capacity, the increased output would not depress the price of the metal more than a few cents per pound. He says that if the large smelting plants now idle were to resume operations immediately, it would be approximately five months before their refined product would reach the market and become a factor in the world. If there were an increase of 25 per cent in the buying demand, it would carry the price of copper to 15 cents before an increase in production could check it.

Of course the most important factor in the copper market is the business situation in this country. At present business is exceedingly bad. It is improving in three to six months, as many believe it will, the copper market will pick up with it. It is good opinion that our hard times will practically disappear by the beginning of the fall months. In this event the average price of copper for 1908 should be over 15 cents per pound.

Almost everything of an adverse character seems to have been discounted by the stock market. Bad news causes a reaction of a point or two only now; and the activity of the market is all on the "up" side. There is a large scattered stock interest in the market. I visited a great many New York brokers this week and found 75 per cent of them bearish. One of them wanted to bet that Amalgamated would sell at 40 before 60; that steel would go to 21 before 31; that Union Pacific would go to 100 before 120; that Central at 70, etc. Such opinions as these are being backed by short sales. The bear traders will have to buy back the stocks they are selling, either at lower prices or higher. A short interest in a market which is as thoroughly liquidated as the present one is a tremendous sustaining force, amounting to an absolute insurance or safeguard against a serious decline.

The president's message will be released today. It will contain a severe arraignment of corporations, being of the same character as those which were issued last year, and the culmination of which was the president's speech at Nashville about the time the panic was getting well under way. Of course the contents of the message were known in financial circles 24 to 36 hours before the message was released for perusal by the public. Should the market decline after the message appears, stocks should be bought, and if it does not decline they should be bought. We are in a trading market which should have an advancing tendency for some time to come.

I feel very sure that the copper situation will gradually improve during the remainder of the year. As a result the best copper will be selling considerably higher next January than they are now. I think that Amalgamated, Utah Consolidated, Copper Range, Granby, Parrot, Utah Copper, Cumberland, Bix and Newhouse are the best stocks to buy just now. On reactions buy Quincy, Wolverine, Calumet & Arizona, Butte Consolidated, Anaconda, Mohawk, Boston Consolidated, Old Dominion, Superior and Pittsburgh, Nevada Consolidated, Michigan, and Hecla.

(Continued on Page Eleven.)